

Some Schools' Examinations from Different Governorates

1 Cairo Governorate

Western Cairo Educational Zone
City Language School



Answer the following questions :

1 Choose the correct answer :

- [a] If $x + 8 = 15$, $x \in \mathbb{N}$, then $x =$
(3 or 7 or 6 or 5)
- [b] The number of axes of symmetry of the rhombus
(1 or 2 or 3 or 4)
- [c] If $2x = 6$, then $x =$
(5 or 1 or 4 or 3)
- [d] The area of a triangle whose base length is 10 cm. and the corresponding height is 5 cm. = cm^2
(50 or 15 or 25 or 5)

2 Complete the following :

- [a] $7 \times 15 = 15 \times a$, then $a =$
- [b] The sum of two numbers is 21 one of them x , then the other =
- [c] The perimeter of the square whose side length is L cm. = cm.
- [d] The area of the parallelogram = \times

3 [a] Solve the following equation :

$$3x - 5 = 10, x \in \mathbb{N}$$

- [b] **Complete :** Twice the number x subtracted 8 from it =

4 [a] The square whose diagonal length is 6 cm. Find its area.

- [b] In the orthogonal Cartesian co-ordinates determine the points A (2 , 5) , B (5 , 2) and C (5 , 8)
 , then draw its image by reflection in \overleftrightarrow{BC}

5 [a] The circle whose diameter length is 14 cm.

Find its circumference. ($\pi = \frac{22}{7}$)

- [b] The following table shows the frequency distribution of the number of work hours of 50 worders :

Sets	4 -	6 -	8 -	10 -	Total
Frequency	12	8	16	14	50

Draw the frequency polygon which represent these data.

Additional question

Choose the correct answer :

- [a] If $X = \{x : x \in \mathbb{N}, 3 \leq x < 5\}$, then $x =$
({3} or {4} or {3, 4} or {3, 4, 5})
- [b] $25 \dots \mathbb{N}$ (\subset or $\not\subset$ or \notin or \in)
- [c] The smallest natural number is (0 or 1 or 2 or 3)
- [d] $(8 \times 3) \times 5 = \dots \times (3 \times 5)$ (3 or 5 or 8 or 35)

2 Cairo Governorate

Rod El-Farag Educational Zone
St. Mary's School



Answer the following questions :

1 Choose the correct answer :

- [a] The number of lines of symmetry of a rectangle is
(0 or 2 or 3 or 4)
- [b] The area of a rhombus whose diagonals 10 cm. , 20 cm. is cm^2
(400 or 300 or 200 or 100)
- [c] If the side length of a square is x and its perimeter is P
 , then $P =$ ($4x$ or $x+4$ or $x-4$ or $4-x$)
- [d] The area of a square whose diagonal length 6 cm. is cm^2
(18 or 36 or 12 or 24)

2 Complete :

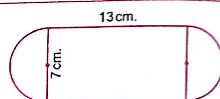
- [a] If the diameter of a circle is 14 cm. , $\pi = \frac{22}{7}$
 , then its circumference = cm.
- [b] The number of axes of symmetry of the rhombus equals

[c] If $x + 3 = 12$, then $x = \dots\dots\dots$

[d] Shorouk saved L.E. y and her father gave her L.E. 12, then she has L.E. $\dots\dots\dots$

3 [a] In the opposite figure :

Find the perimeter of the figure
where $\pi = \frac{22}{7}$



[b] Ahmed has L.E. x , Samir has L.E. 10 and the sum of what Samir has and the twice of what Ahmed has is L.E. 24. Write an equation to represent this situation and find the value of x

4 [a] In square shaped piece of land with diagonal length 28 m., a square shaped house with side length 15 m. has been built on it and the left part was used as a garden. find the area of the garden.

[b] In a 2-dimensional coordinate plan, draw $\triangle ABC$ where $A(2, 5)$, $B(5, 2)$ and $C(5, 8)$, then find its image by reflection across \overleftrightarrow{BC}

5 [a] Which is greater in area? A triangle whose base length = 9 cm. and height = 8 cm. or parallelogram in which the length of the base = 8 cm. and its height = 6 cm.

[b] The following table shows the daily wages of workers in a company :

Sets	20 –	30 –	40 –	50 –	60 –	Total
Frequency	8	10	16	12	4	50

Draw the frequency histogram and frequency polygon which represent these data.

Additional question

Complete :

[a] The multiplicative neutral element in \mathbb{N} is $\dots\dots\dots$

[b] The sum of two odd numbers is $\dots\dots\dots$ number.

[c] 1, 4, 8, 13, $\dots\dots\dots$, $\dots\dots\dots$ (in the same pattern)

[d] $74 \times (73 + 27) = 74 \times \dots\dots\dots = \dots\dots\dots$

3 Cairo Governorate

El-Zeitoun Educational Zone
El-Ma'aref Modern Lang. School



Answer the following questions :

1 Choose the correct answer :

[a] Subtracting 3 from double of the number $x = \dots\dots\dots$

($x - 3$ or $2x - 3$ or $3x + 2$ or $5x$)

[b] If $x + 3 = 12$, then the value of $x = \dots\dots\dots$

(12 or 4 or 15 or 9)

[c] The area of a square whose diagonal length is 8 cm. = $\dots\dots\dots$ cm²

(64 or 32 or 16 or 8)

[d] Circumference of the circle = $\dots\dots\dots$

(πr^2 or $2\pi r^2$ or $\frac{1}{2}\pi r^2$ or $2\pi r$)

[e] The number of symmetry axes of an equilateral triangle = $\dots\dots\dots$

(0 or 1 or 2 or 3)

2 Complete :

[a] A rhombus of area 48 cm², its height = 4.8, then its perimeter = $\dots\dots\dots$ cm.

[b] If $7 \times 15 = 15 \times x$, then $x = \dots\dots\dots$

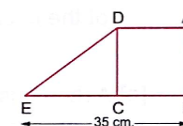
[c] The sum of two numbers is 35, one of them is x , then the other is $\dots\dots\dots$

[d] The square whose perimeter is 32 cm., its area = $\dots\dots\dots$ cm²

[e] The base length of a triangle is 8 cm. and its height 5 cm., then its area = $\dots\dots\dots$ cm²

3 [a] In the opposite figure :

ABCD is a square, its perimeter is 60 cm., $E \in \overleftrightarrow{BC}$ and $BE = 35$ cm.
Find the area of the figure ABED



[b] Solve the equations :

(1) $3x + 8 = 29$

(2) $\frac{1}{3}x + 8 = 10$

4 [a] Which is greater in area ?

A rhombus in which the lengths of its diagonals 6 cm. , 8 cm.
or a parallelogram whose base length is 7 cm. and height 4 cm.

[b] In the orthogonal Cartesian-coordinates locate the points

A (8 , 2) , B (3 , 2) , C (3 , 6) , D (8 , 6) then complete :

- (1) The length of AB = units, the length of BC = units.
(2) The figure ABCD is
(3) The perimeter of the figure ABCD = units.

5 The following table shows the daily wages of workers in a company :

Sets	20 –	30 –	40 –	50 –	60 –	Total
Frequency	8	10	16	12	4	50

Draw the frequency histogram and frequency polygon which represent these data.

Additional question

Use the commutative , associative properties to simplify finding the result of :

- (1) $98 + 175 + 102$ (2) $4 \times 175 \times 25$

4 Cairo Governorate

El-Nozha Directorate of Education
Our Lady of Perpetual Succour School



Answer the following questions :

1 Choose the correct answer :

- [a] If $x + 7 = 19$, $x \in \mathbb{N}$, then $x =$
(26 or 12 or 11 or 13)
[b] If the longest chord in a circle is 7 cm. , then the circumference
of the circle is cm. where $(\pi = \frac{22}{7})$
(3.5 or 7 or 22 or 44)
[c] A rhombus in which the lengths of its diagonals are 10 cm. , and 12 cm.
Its area = cm^2 (120 or 60 or 24 or 32)
[d] Twice the number x subtracted 7 from it =
($7 - x$ or $2x - 7$ or $7x + 2$ or $14x$)

2 Complete the following :

- [a] The number of axes of symmetry of the rhombus =
[b] If $3x = 15$, $x \in \mathbb{N}$, then $x =$
[c] The length of the diagonal of a square with area $18 \text{ cm}^2 =$
[d] A parallelogram in which the lengths of two adjacent sides are 5 cm.
and 7 cm. , the length of the smaller height = 4 cm.
 , then its area = cm^2

3 [a] Which is greater in area ?

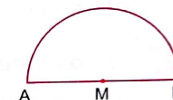
A square whose diagonal length is 10 cm. or a right - angled triangle
in which the lengths of the sides of the right angle are 8 cm.
and 15 cm.

- [b] Solve : $2x + 9 = 21$, $x \in \mathbb{N}$

4 [a] In the opposite figure :

The length of the diameter \overline{AB}
of a semicircle is 14 cm.

Find the distance around the figure $(\pi = \frac{22}{7})$



- [b] Draw the triangle ABC where A (2 , 5) , B (5 , 2) and C (5 , 8)
 , then find its image by reflection across \overleftrightarrow{BC}

5 [a] If the area of a rhombus is 30 cm^2 and the length of one of its
diagonals is 6 cm. Find the length of the other diagonal.

[b] The following table shows the frequency distribution of the
number of work hours of 50 workers :

Sets	4 –	6 –	8 –	10 –	Total
Frequency	12	8	16	14	50

Draw the frequency histogram which represents these data.

Additional question

Complete :

- [a] The set $\{a : a \in \mathbb{N} , a < 4\}$ in the listing method =
[b] The property used in : $a \times (b \times c) = (a \times b) \times c$ is
[c] The additive neutral element in \mathbb{N} is
[d] 1 , 2 , 3 , 5 , 8 , , (in the same pattern)

5 Cairo Governorate

New Cairo Educational Zone
Akhmaton Egyptian College



Answer the following questions :

1 Complete :

- [a] If the long base of parallelogram is 8 cm. , short base 5 cm. and its short height is 4 cm. , then its area = cm²
- [b] The circumference of circle whose diameter length 7 cm. is cm. ($\pi = \frac{22}{7}$)
- [c] The area of rhombus = $\frac{1}{2} \times \dots \times \dots$
- [d] If $2x = 10$, then $x = \dots$
- [e] The polygon ABCD \equiv the polygon XYZL , then $\angle A \equiv \angle \dots$

2 Choose the correct answer :

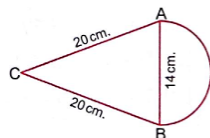
- [a] If the circumference of a circle is 44 cm. , then its radius length = cm. (14 or 7 or 22)
- [b] The triangle whose base length is 5 cm. , and the corresponding height of it is 6 cm. , its area = cm² (30 or 15 or 25)
- [c] The area of the square with diagonal length 6 cm. is cm² (36 or 18 or 12)
- [d] If $x + 8 = 15$, $x \in \mathbb{N}$, then $x = \dots$ (3 or 7 or 6)
- [e] The shaded triangle is an image of the other triangle by (reflection or translation or rotation)

3 Solve the equations :

- [a] $2x + 9 = 21$, $x \in \mathbb{N}$ [b] $x - 5 = 2$, $x \in \mathbb{N}$

- [4] [a] In the Cartesian co-ordinates plane draw the triangle ABC where A (2 , 1) , B (5 , 1) and C (5 , 5) , then draw the image of the triangle by reflection on \overline{BC}

- [b] Calculate the perimeter of the opposite figure : ($\pi = \frac{22}{7}$)



- 5 The following table shows the frequency distribution of the number of work hours of 50 workers :

Sets	4 -	6 -	8 -	10 -	Total
Frequency	12	8	16	14	50

Draw the histogram and the frequency polygon representing these data.

Additional question

Choose the correct answer :

- [a] $(4 \times \dots) \times 78 = 7800$ (5 or 25 or 50 or 125)
- [b] If O is the set of odd numbers , E is the set of even numbers , then $O \cap E = \dots$ (\mathbb{N} or O or E or \emptyset)
- [c] $(2 + 6) \dots \mathbb{N}$ (\in or \notin or \subset or \subsetneq)
- [d] c a where a , c are two natural numbers. (< or = or > or \geq)

6 Giza Governorate

Bolak El-Dakror Educational Directorate
Dar El-Hanan language school



Answer the following questions :

1 Choose the correct answer :

- [a] If $x(75 + 10) = 9 \times 85$, then $x = \dots$ (5 or 85 or 9 or 8)
- [b] The number of axes of symmetry of the scalene triangle is (0 or 1 or 2 or 3)
- [c] The length of the base of a triangle whose area is 240 cm² and its height is 10 cm. is cm. (4 or 12 or 48 or 240)
- [d] Twice the number x subtracted 3 from it ($x - 3$ or $2x + 3$ or $2x - 3$ or $3 - 2x$)

2 Complete the following :

- [a] The square whose area is 72 cm² , the length of its diagonal = cm.
- [b] If the age of a man now is x years, then his age after 7 years =
- [c] If $5x - 7 = 33$, then $x = \dots$
- [d] The longest chord of a circle is 7 cm. the circumference = cm. where ($\pi = \frac{22}{7}$)

Final Examinations

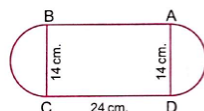
- 3 [a] A rhombus in which the lengths of its diagonals are 12 cm. , 16 cm. and the height is 9.6 cm. calculate its area and its side length.

- [b] In the two dimensions Cartesian co-ordinates, determine the points A (2 , 5) , B (5 , 2) , C (5 , 8) , then :

- (1) Find the length of \overline{BC}
- (2) Draw its image by reflection across \overrightarrow{BC}
- (3) Calculate the area of $\triangle ABC$

- 4 [a] Three times of a number x is 8 more than 1 , express it in an equation and solve it.

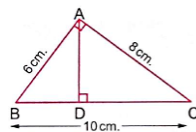
- [b] Find the perimeter of the opposite figure :
Where $(\pi = \frac{22}{7})$



- 5 [a] In the opposite figure :

ABC is a right-angled triangle
AB = 6 cm. , AC = 8 cm. and BC = 10 cm.

Find : (1) Area of $\triangle ABC$ (2) Length of \overline{AD}



- [b] The following table shows the frequency distribution of the number of work hours of 50 works :

Sets	2 -	4 -	6 -	8 -	10 -	Total
Frequency	8	9	15	16	2	50

Graph these data using the frequency polygon.

Additional question

Use the commutative and associative properties in \mathbb{N} to calculate each of the following :

- (1) $72 + 89 + 28 + 11$
- (2) $8 \times 37 \times 125$

7 Giza Governorate

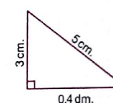
6th October Language School



Answer the following questions :

- 1 Choose the correct answer :

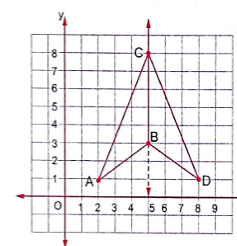
- [a] Adding 8 to double x the symbolic expression is
($2x + 8$ or $8 - 2x$ or $x + 8$ or $8 + 3x$)
- [b] The area of rhombus whose diagonals are of length 12 cm. and 16 cm.
= cm^2 (56 or 28 or 96 or 129)
- [c] Isosceles trapezium has line of symmetry.
(4 or 2 or 1 or 3)
- [d] The circumference of a circle whose diameter is 14 cm.
equals cm. $(\pi = \frac{22}{7})$ (44 or 22 or 88 or 100)
- [e] Area of the opposite triangle is cm^2



(12 or 24 or 43 or 6)

- 2 [a] Complete the following :

- (1) The area of the square whose perimeter is 24 cm. equals cm^2
- (2) $5x = 10$, then $x =$
- (3) Square has lines of symmetry.
- (4) The image of $\triangle CAB$ by reflection across \overline{BC} is \triangle



- [b] Find the circumference of a circle whose radius length is 35 cm. $(\pi = \frac{22}{7})$

- 3 Which is greater in area ?

A square whose diagonal is 10 cm. long. or a right-angled triangle in which the lengths of the sides of the right angle are 8 cm. and 15 cm.

Final Examinations

- 4 [a] Graph the figure ABCD where A (2, 7), B (3, 4), C (8, 4), D (7, 7).
What is the name of the figure ABCD?

[b] Solve the equation : $5x + 3 = 13$ where $x \in \mathbb{N}$

- 5 The following table shows the recorded temperatures in 40 cities on a day :

Temperatures	20 –	22 –	24 –	26 –	28 –	Total
Number of cities	7	9	11	8	5	40

Represent these data by frequency polygon.

Additional question

Complete :

- [a] The multiplicative identity element in \mathbb{N} is
 [b] $(9 \times 4) \times 3 = \dots \times (3 \times 4)$
 [c] The set of natural numbers less than 5 is
 [d] 1, 3, 9, 27, (in the same pattern)

8 Giza Governorate

Maths inspection



Answer the following questions :

- 1 Choose the correct answer :

- [a] If we multiply the number x by 7, then we subtract 3 from the result we get
 ($7x + 3$ or $3x + 7$ or $7x - 3$ or $x - 21$)
 [b] If the side length of a rhombus is x and its perimeter is P , then the mathematical relation between x and P is $P = \dots$
 ($x + 4$ or $4x$ or $4 - x$ or $x - 4$)
 [c] The area of the rhombus whose diagonals are of length 12 cm. and 16 cm. = cm^2
 (56 or 25 or 96 or 192)
 [d] The geometric transformation is
 (translation or rotation or reflection)

- 2 Complete the following :

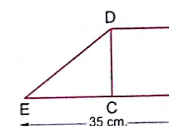
- [a] The shaded triangle is an image of the other triangle by
 [b] If the perimeter of a square = 32 cm., then its area = cm^2
 [c] If $x - 3 = 5$, $x \in \mathbb{N}$, then $x = \dots$
 [d] The area of square whose diagonal length is 12 cm. is cm^2

- 3 [a] Solve the following equation : $5x - 7 = 33$, $x \in \mathbb{N}$

- [b] In the Cartesian coordinates determine the points A (8, 5), B (8, 2), C (5, 2), D (5, 7), then draw the figure ABCD and draw its image by reflection in \overline{CD}

- 4 [a] Find the circumference of a circle whose diameter is 14 cm., ($\pi = \frac{22}{7}$)

- [b] In the opposite figure :
 ABCD is a square of side length 15 cm.
 E \in BC, BE = 35 cm.
 Find the area of the figure ABED



- 5 The following table shows the frequency distribution of the number of work hours of 50 workers :

Sets	4 –	6 –	8 –	10 –	The Total
Frequency	12	8	16	14	50

Draw the frequency polygon to represent these data.

Additional question

Choose the correct answer :

- [a] If O is the set of odd numbers, then O \mathbb{N}
 (\in or \notin or \subset or $\not\subset$)
 [b] $\{2, 3\}$ \mathbb{N}
 (\in or \notin or \subset or $\not\subset$)
 [c] If $X = \{x : x \in \mathbb{N}, 2 \leq x \leq 3\}$, then $X = \dots$
 ($\{2, 3\}$ or $\{3\}$ or $\{2\}$ or \emptyset)
 [d] The least prime number \times any prime number = number.
 (odd or even or prime or other wise)

9 Alexandria Governorate

Middle Educational Zone
Mathe inspection



Answer the following questions :

1 Complete :

- [a] The area of a square of diagonal length 8 cm. = cm²
 [b] If $35 + x = 18 + 35$, then $x =$
 [c] The triangle whose base length is 5 cm. and its corresponding height is 6 cm. then its area = cm²
 [d] The rhombus whose area is 36 cm² and the length of one of its diagonals is 8 cm. , then the length of the other diagonal = cm.

2 Choose the correct answer :

- [a] If we multiply the number x by 7, then we subtract from the result 3, we shall get
 ($7x + 3$ or $3x + 7$ or $7x - 3$ or $3 - 7x$)
 [b] The area of rhombus whose diagonals 10 cm. and 20 cm. is cm²
 (200 or 30 or 100 or 400)
 [c] The sum of two numbers a and b is 10, then $b =$
 ($10 - a$ or $a - 10$ or $a + 10$ or $10 - b$)
 [d] The diameter length of a circle whose circumference is 44 cm.
 = cm. ($\pi = \frac{22}{7}$) (28 or 21 or 14 or 7)

- 3 [a] On the coordinate plane, draw $\triangle ABC$ where $A(3, 5)$, $B(6, 5)$, $C(3, 2)$, then draw the image of $\triangle ABC$ by reflection across \overline{AC}

[b] Complete :

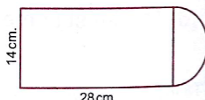
- (1) The perimeter of an equilateral triangle whose side length is L cm. = cm.
 (2) The area of a rectangle whose length is x cm. and width is 5 cm. = cm²

4 [a] Solve each of the following equations :

- (1) $3x + 7 = 19$ (2) $2x - 15 = 7$

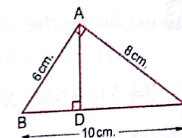
- [b] Calculate the perimeter of the following figure

, where $(\pi = \frac{22}{7})$



5 [a] In the opposite figure :

ABC is a right-angled triangle at A , $\overline{AD} \perp \overline{BC}$
 Find the area of $\triangle ABC$ and the length of \overline{AD}



- [b] The following table represents the marks of 50 students in the math exam in a month.

Sets	10 -	20 -	30 -	40 -	Total
Frequency	10	12	18	10	50

Draw the frequency polygon which represents the given data.

Additional question

- [a] Using the properties of addition find the value : $32 + 47 + 68 + 3$
 [b] Use the distribution property in \mathbb{N} to find :
 (1) 112×99 (2) 215×101

10 Alexandria Governorate

East Educational Zone
Supervision of Maths



Answer the following questions :

1 Choose the correct answer :

- [a] Subtracting 3 from double of the number $x =$
 ($x - 3$ or $2x - 3$ or $3x + 2$ or $5x$)
 [b] A square whose diagonal length is 8 cm. , its area = cm²
 (8 or 16 or 32 or 64)
 [c] There are axes of symmetry of an equilateral triangle.
 (0 or 1 or 2 or 3)
 [d] A year and 3 months = months.
 (13 or 33 or 15 or 27)

2 Complete :

- [a] $4\frac{2}{5} =$ (as a decimal)
 [b] If $x + 8 = 15$, $x \in \mathbb{N}$, then $x =$
 [c] The number of axes of symmetry of the rhombus =
 [d] A parallelogram whose area is 36 cm² and the length of a side of it is 9 cm. , then the corresponding height to this side = cm.

Final Examinations

3 [a] Solve the equations :

(1) $x - 5 = 19$, $x \in \mathbb{N}$

(2) $2x + 9 = 21$, $x \in \mathbb{N}$

[b] A rhombus of diagonal lengths are 12 cm. and 16 cm., calculate its area.

4 [a] $\triangle ABC$ is a right-angled triangle at B , where $AB = 6$ cm. , $BC = 8$ cm. and $AC = 10$ cm. Find the area of this triangle.

[b] In a 2-dimensional co-ordinate plane , plot the points A (8 , 5) , B (8 , 2) , C (5 , 2) and D (5 , 7). If \overline{CD} is the axis of reflection of the figure ABCD , then determine the image of ABCD.

5 [a] Calculate the circumference of a circle , if the longest chord in this circle is 7 cm. where $(\pi = \frac{22}{7})$

[b] Represent the following data by frequency polygon :

Sets	20 -	30 -	40 -	50 -	Total
Frequency	8	10	16	4	50

Additional question

Complete :

[a] 99 added to the neutral element of multiplication =

[b] $21 + (36 + \dots) = (21 + \dots) + 84$

[c] The set of natural numbers less than 7 and greater than 2 is

[d] 1, 4 , 9 , 16, , (in the same pattern)

11 El-Kalyoubia Governorate Directorate of Education

Answer the following questions :

1 Complete each of the following :

[a] The square whose diagonal length = 10 cm. , its area = cm^2

[b] If $x + 2 = 7$, $x \in \mathbb{N}$, then $x - 2 = \dots$

[c] The area of the triangle whose base length is 6 cm. and height 8 cm. = cm^2

[d] $\frac{\text{circumference of the circle}}{\text{diameter length}} = \dots$

2 Choose the correct answer :

[a] Number of lines of symmetry of the square =

(1 or 2 or 3 or 4)

[b] Subtracting 9 from twice of the number $x = \dots$

($2x - 9$ or $9 - 2x$ or $2x + 9$ or $9x$)

[c] If $X = \{x : x \in \mathbb{N} , 5 \leq x < 7\}$, then $X = \dots$

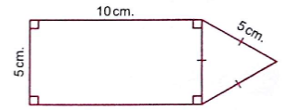
($\{5\}$ or $\{6\}$ or $\{5, 6\}$ or $\{5, 6, 7\}$)

[d] If the sum of the two numbers x and y is 20 , then $y = \dots$

($20 + x$ or $20 - x$ or $x - 20$ or $\frac{x}{20}$)

3 [a] Find the radius length of the circle whose circumference = 132 cm. (Where $\pi = \frac{22}{7}$)

[b] Find the perimeter of the opposite figure :



4 [a] Solve the equation : $2x - 5 = 3$, where $x \in \mathbb{N}$

[b] In the Cartesian coordinates plane, locate the points A (2 , 2) , B (5 , 2) , C (5 , 6) :

(1) Find the length of each of \overline{AB} and \overline{BC}

(2) Draw the image of figure ABC by reflection in \overline{BC}

5 The following table shows the marks of 40 pupils in maths exam :

Sets	10 -	20 -	30 -	40 -	Total
Frequency	6	K	14	12	40

(1) Find the value of K

(2) Represent these data by the frequency polygon.

12 El-Sharkia Governorate Directorate of Education Dep. of Governmental L. Schools

Answer the following questions :

1 Choose the correct answer :

[a] The area of square whose diagonal length is 8 cm. is cm^2

(64 or 32 or 16 or 10)

Final Examinations

[b] If $x + 3 = 8$, $x \in \mathbb{N}$, then $x = \dots\dots\dots$ (11 or 24 or 13 or 5)

[c] If the sum of two numbers x and y is 20, then $y = \dots\dots\dots$
($x - 20$ or $20 - x$ or $x + 20$ or $\frac{x}{20}$)

[d] The square has $\dots\dots\dots$ symmetric axes. (1 or 2 or 3 or 4)

2 Complete the following :

[a] Area of parallelogram = $\dots\dots\dots \times \dots\dots\dots$

[b] The radius length of circle with circumference 44 cm.
and $\pi = \frac{22}{7}$ is $\dots\dots\dots$ cm.

[c] If $2x = 10$ and $x \in \mathbb{N}$, then $x = \dots\dots\dots$

[d] The length of the base of a triangle whose area = 80 cm^2
and its height = 10 cm. is $\dots\dots\dots$ cm.

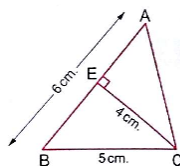
3 [a] Solve the equation in \mathbb{N} : $\frac{1}{2}x - 5 = 3$

[b] In the opposite figure :

ABC is a triangle, $\overline{CE} \perp \overline{AB}$,

if $AB = 6 \text{ cm}$, $BC = 5 \text{ cm}$.

and $CE = 4 \text{ cm}$. Find area of $\triangle ABC$

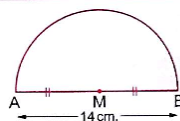


4 [a] Calculate the perimeter of the opposite figure

where $AB = 14 \text{ cm}$. ($\pi = \frac{22}{7}$)

[b] Which is greater in area ?

a parallelogram of base 10 cm. and corresponding height 6 cm.
or a rhombus of diagonals lengths 12 cm. and 16 cm.



5 [a] In 2-dimensional coordinate plane locate the points A (3 , 1)

, B (5 , 1) , C (5 , 3) , D (3 , 3)

Name the figure ABCD , then find its area.

[b] The following table shows the recorded temperatures
in 40 cities on day :

Temperatures	20 -	22 -	24 -	26 -	28 -	Total
Number of cities	7	10	12	6	5	40

Draw each of histogram and the frequency polygon.

Additional question

Choose the correct answer :

[a] $49 \div 8 \dots\dots\dots \mathbb{N}$ (\in or \notin or \subset or $\not\subset$)

[b] If $X = \{x : x \in \mathbb{N}, 3 \leq x < 5\}$, then $X = \dots\dots\dots$
($\{4\}$ or $\{3\}$ or $\{3, 4\}$ or $\{4, 5\}$)

[c] If E is the set of even numbers, then $E \dots\dots\dots \mathbb{N}$

[d] $(8 \times 3) \times 5 = \dots\dots\dots \times (3 \times 5)$ (\in or \notin or \subset or $\not\subset$)
(3 or 5 or 8 or 15)

13 El-Monofia Governorate

El-Bagour Educational Zone
Maths Inspection



Answer the following questions :

1 Complete :

[a] The perimeter of a square whose side length is $x \text{ cm}$. = $\dots\dots\dots \text{ cm}$.

[b] The sum of two numbers is 21 one of them is x , then the
other = $\dots\dots\dots$

[c] The area of a rectangle whose length is $x \text{ cm}$.
and width is 5 cm. = $\dots\dots\dots \text{ cm}^2$

[d] The number of axes of symmetry of the rhombus = $\dots\dots\dots$

2 Choose the correct answer :

[a] Twice the number x subtracted 3 from it = $\dots\dots\dots$

($x - 3$ or $2x + 3$ or $2x - 3$ or $3 - 2x$)

[b] If $x + 3 = 5$, $x \in \mathbb{N}$, then : $x = \dots\dots\dots$ (1 or 2 or 3 or 4)

[c] The square whose diagonal length is 8 cm. its area = $\dots\dots\dots \text{ cm}^2$
(64 or 32 or 16 or 8)

[d] The length of the base of the triangle is 8 cm. and its height is 5 cm.
, then its area = $\dots\dots\dots \text{ cm}^2$ (9 or 40 or 8 or 20)

3 [a] Find the circumference of circle with diameter length 14 cm. ($\pi = \frac{22}{7}$)

[b] Solve the following equation : $x - 5 = 8$, $x \in \mathbb{N}$

4 In the Cartesian co-ordinates plane determine the points

A (2 , 2) , B (5 , 2) , C (5 , 8) , D (2 , 8), if \overrightarrow{BC} is the axis of
reflection of the figure ABCD , then determine the image of the figure ABCD

- 5 Draw the frequency polygon for the following frequency distribution :

Sets	10 -	12 -	14 -	16 -	18 -	20 -	Total
Frequency	2	5	7	11	6	4	35

Additional question

- [a] If $X = \{a : a \in \mathbb{N}, 1 \leq X < 5\}$, $Y = \{4, 5, 6\}$
Find : (1) $X \cap Y$ (2) $X \cup Y$ (3) $X - Y$
[b] Use the properties of addition in \mathbb{N} to find result of :
 $49 + 257 + 51$ (mention the used property)

14 El-Gharbia Governorate General Mathematics Supervision

Answer the following questions :

- 1 Complete :

- [a] If $x + 8 = 18$, then $x =$
[b] The rhombus with diagonals lengths 6 cm. , and 8 cm.
its area = cm²
[c] If we add 3 to twice the number x , then we will get the number
[d] The number of axes of symmetry of the rectangle =

- 2 Choose the correct answer :

- [a] The square whose diagonal length = 8 cm. , its area = cm²
(64 or 32 or 16 or 8)
[b] Subtracting 7 from the double of the number $x =$
($x - 7$ or $2x - 7$ or $7x + 2$ or $4x$)
[c] If $Y + 10 = 10$, then $Y =$ (100 or 10 or 1 or 0)
[d] The square has lines of symmetry. (0 or 1 or 3 or 4)

- 3 [a] Find the area of the triangle whose base length is 8 cm. and its corresponding height is 10 cm.

- [b] Solve the equation : $2x - 7 = 5$ where $x \in \mathbb{N}$

- 4 [a] On the coordinate plane draw ΔABC where : A (2 , 1) , B (5 , 1) , (5 , 5) , then draw the image of ΔABC by reflection in \overline{BC}

- [b] Find the circumference of the circle whose diameter is 7 cm. ($\pi = \frac{22}{7}$)

- 5 [a] Solve the equation : $x + 3 = 12$ where $x \in \mathbb{N}$

- [b] Represent the following data by a frequency polygon.

Sets	4 -	6 -	8 -	10 -	Total
Frequency	4	6	5	10	25

Additional question

Complete :

- [a] The smallest natural number is
[b] $23 \times (98 + 2) = 23 \times \dots = \dots$
[c] The set of prime numbers which are less than 15 is
[d] $(20 \times 50) \times 30 = \dots \times (50 \times 30)$

15 El-Dakahlia Governorate

Maths Supervision

Answer the following questions :

- 1 Complete :

- [a] Subtract 3 from the number y , the symbolic expression is
[b] The perimeter of square whose side length is $L =$
[c] The area of the triangle = $\frac{1}{2} \times \dots \times \dots$
[d] The area of a parallelogram =

- 2 Choose the correct answer :

- [a] If $x + 8 = 15$, $x \in \mathbb{N}$, then $x =$ (3 or 7 or 6 or 5)
[b] The square whose diagonal length is 8 cm. , its area = cm²
(64 or 32 or 16 or 8)
[c] The number of axes of symmetry of rhombus equals
(0 or 1 or 2 or 4)
[d] The area of the largest rectangle whose perimeter is 24 cm.
= cm² (15 or 36 or 72 or 144)

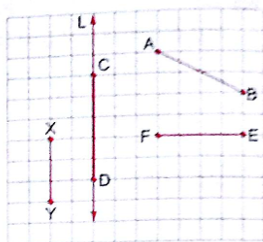
- 3 [a] Which is greater in area ? a rhombus in which the lengths of its diagonals are 8 cm. and 6 cm. or the parallelogram in which the length of its base is 10 cm. and the corresponding height is 5 cm. , then calculate the difference between them.

- [b] Complete : The circumference of a circle =

Final Examinations

- 4 Find the image of the indicated line segments by reflection across L , then complete :

- (1) The image of \overline{AB} by reflection across L is
- (2) The image of \overline{EF} by reflection across L is
- (3) The image of \overline{XY} by reflection across L is
- (4) The image of \overline{CD} by reflection across L is



- 5 [a] An employee spends his monthly salary as follow 1000 pounds for food, 500 pounds for clothes 250 the rent of the flat 250 other spending represent there data on the shown circular sectors.



- [b] Solve the equation : $3x + 3 = 12$, where $x \in \mathbb{I}$

Additional question

Choose the correct answer :

- [a] $\frac{9-5}{3-3} = \dots$ (zero or 3 or 4 or meaningless)
- [b] The smallest counting number is (0 or 1 or 2 or 3)
- [c] $\{5, 7, 8\} \dots \mathbb{N}$ (\subset or $\not\subset$ or \in or \notin)
- [d] If $X = \{x : x \in \mathbb{N}, x \leq 2\}$, then $X = \dots$ ($\{0, 1\}$ or $\{1\}$ or $\{0, 1, 2\}$ or \emptyset)

16 Ismailia Governorate

Directorate of Education
Directing Mathematics




Answer the following questions :

- 1 Complete :

- [a] If $3x = 21$, then $x = \dots$
- [b] If $b = 3$, then $2b - 5 = \dots$
- [c] Adding 5 to three times a number y is
- [d] A rhombus its area 50 cm^2 and the length of one of its diagonals 25 cm. , then the length of other diagonal = cm.

- 2 Choose the correct answer :

- [a] The opposite transformation  is (translation or rotation or reflection)
- [b] If the side lengths of a triangle are equal in length then the triangle is triangle. (scalene or isosceles or equilateral)
- [c] The angle whose measure 180 is called angle. (right or obtuse or acute or straight)
- [d] If $y = 3x + 5$, then the constant (y or x or 3 or 5)

- 3 [a] Which is greater in area ? a square its diagonal length 10 cm. or a parallelogram its base length 12 cm. and height 8 cm.

- [b] A circle its diameter 21 cm. Find its circumference ($\pi = \frac{22}{7}$)

- 4 [a] In the coordinate plane draw the triangle ABC where A (1, 1), B (3, 1), C (3, 5), then draw its image by reflection on \overline{BC}

- [b] Solve the equations :

(1) $2x + 3 = 13$

(2) $\frac{1}{2}y = 6$

- 5 [a] A triangle its area 48 cm^2 and base length 8 cm. , find the length of its height.

- [b] The following table shows the marks of 40 pupils in mathematics exam in one month where the full mark is 50 marks :

Sets	10 -	20 -	30 -	40 -	Total
Frequency	10	12	8	10	40

Represent these data by frequency polygon.

Additional question

Calculate using commutative, associative and distributive properties :

(1) $642 + 171 + 358 + 29$

(2) 25×304

17 Suez Governorate

Directorate of Educational
Maths Inspectorate



Answer the following questions :

1 Choose the correct answer :

- [a] If $x + 3 = 5$, $x \in \mathbb{N}$, then $x = \dots\dots\dots$ (1 or 2 or 3 or 4)
 [b] The area of square of diagonal length 6 cm. is $\dots\dots\dots$ cm²
 (18 or 36 or 24 or 6)
 [c] The sum of the two numbers a and b is 10, then b = $\dots\dots\dots$
 (a - 10 or a or 10 - a or 10)
 [d] The number of axes of symmetry of the rhombus = $\dots\dots\dots$
 (1 or 0 or 3 or 2)
 [e] If $X = \{x : x \in \mathbb{N}, 3 \leq x < 5\}$, then $x \in \dots\dots\dots$
 ({4} or {3, 4} or {3} or {4, 5})

2 Complete :

- [a] Add 5 to twice the number $x = \dots\dots\dots$
 [b] The triangle of base length 5 cm. and the corresponding height is 6 cm. , its area = $\dots\dots\dots$ cm²
 [c] The number of axes of symmetry of an equilateral triangle is $\dots\dots\dots$
 [d] The circumference of a circle with diameter 20 cm. is $\dots\dots\dots$ π cm.
 [e] If $945 = (x \times 100) + 45$, then $x = \dots\dots\dots$

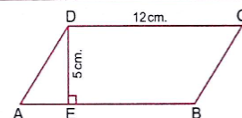
3 [a] Solve the equation : $3x + 7 = 19$, $x \in \mathbb{N}$

- [b] Find the area of rhombus whose diagonals lengths 20 cm. and 10 cm.

4 [a] Find the circumference of the circle of radius 21 cm. ($\pi = \frac{22}{7}$)

- [b] In 2-dimensional coordinate plane locate the points A (2 , 1) , B (5 , 1) and C (5 , 5) , then draw the image of $\triangle ABC$ by reflecting across \overline{BC}

5 [a] Find the area of parallelogram ABCD



[b] The following table shows the marks of 35 students in math exam :

Sets	5 -	10 -	15 -	20 -	25 -	Total
Frequency	5	9	11	6	4	35

Represent these data by frequency polygon.

18 Port Said Governorate

Maths Inspection



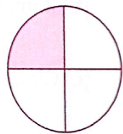
Answer the following questions :

1 Choose the correct answer :

- [a] If $x + 7 = 9$, $x \in \mathbb{N}$, then $x = \dots\dots\dots$ (16 or 2 or 11 or 13)
 [b] The area of a triangle whose base length 5 cm. and the corresponding height 6 cm. is $\dots\dots\dots$ cm²
 (15 or 3 or 11 or 60)
 [c] Subtract 4 from the number y the symbolic expression is $\dots\dots\dots$
 ($2y - 4$ or $y + 4$ or $y - 4$ or $2y + 4$)
 [d] The number of axes of symmetry of the square $\dots\dots\dots$
 (1 or 2 or 3 or 4)

2 Complete the following :

- [a] Shorouk saved x pounds , her father gave her 10 pounds , then she has $\dots\dots\dots$ pounds.
 [b] The area of a rhombus whose diagonals are 6 cm. and 8 cm. is $\dots\dots\dots$ cm²
 [c] In the opposite figure :
 The shaded sector represents $\dots\dots\dots$ of the circle.
 [d] The area of square = $\frac{1}{2} \times$ diagonal length $\times \dots\dots\dots$

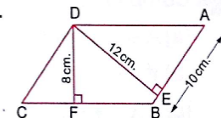


3 [a] Solve the following equation : $2x + 9 = 21$, $x \in \mathbb{N}$

[b] In the opposite figure :

ABCD is a parallelogram in which AB = 10 cm. , DE = 12 cm. , DF = 8 cm. Find :

- (1) The area of the parallelogram ABCD.
 (2) The length of \overline{BC}



Final Examinations

- 4 [a] Find the circumference of a circle with diameter 10 cm. ($\pi = 3.14$)
 [b] In the Cartesian coordinates plane, determine the points A (2, 5), B (5, 2) and C (5, 8), then draw the image of $\triangle ABC$ by reflection in \overline{BC}

- 5 From the following table draw the histogram and the frequency polygon:

Sets	10 –	20 –	30 –	40 –	Total
Frequency	10	12	18	10	50

Additional question

Complete:

- (1) The multiplicative neutral element in \mathbb{N} is
 (2) If $X = \{x : x \in \mathbb{N}, 3 \leq x < 4\}$, then $x \in$
 (3) The set of natural numbers less than 7 is
 (4) $32 + (59 + \dots) = (32 + 68) + \dots$

19 Damietta Governorate

Damietta Inspection of Mathematic
Official Language Schools



Answer the following questions:

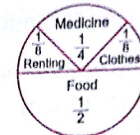
- 1 Choose the correct answer:

- [a] If the ordered pair $(2, 5) = (2, y)$, then $y =$
 (2 or 3 or 4 or 5)
 [b] If the sum of two numbers x and y is 20, then $y =$
 ($20 + x$ or $20 - x$ or $x - 20$ or $\frac{x}{20}$)
 [c] Circumference of the circle =
 (πr or $2\pi r$ or π or $\pi + r$)
 [d] The number of axes of symmetry of the rhombus is
 (0 or 1 or 2 or 4)

- 2 Complete:

- [a] A square whose diagonal is 8 cm., then its area = cm^2
 [b] If the number x is 9 more, then the double of y , then $x =$
 [c] If $x - 4 = 6$, $x \in \mathbb{N}$, then $x =$

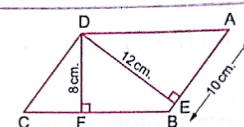
- [d] An employee spends his salary as follows
 $\frac{1}{8}$ of it to clothes, $\frac{1}{2}$ of it to food
 $\frac{1}{4}$ of it to medicine and
 $\frac{1}{8}$ of it to renting. If his salary was L.E. 1 600
 , then the spends of food = L.E.



- 3 [a] In the opposite figure:

ABCD is a parallelogram in which
 $AB = 10$ cm., $DE = 12$ cm., $DF = 8$ cm.

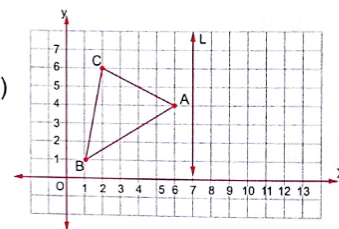
- Find: (1) The area of the parallelogram ABCD
 (2) The length of \overline{BC}



- [b] Calculate the circumference of the circle whose diameter is 14 cm. ($\pi = \frac{22}{7}$)

- 4 [a] In the cartesian coordinates plane, from the opposite figure:

- (1) Complete: A (.....,),
 B (.....,),
 and C (.....,)
 (2) If L is the axis of reflection of the $\triangle ABC$, draw $\triangle \hat{A}\hat{B}\hat{C}$ the image of $\triangle ABC$ by reflection in the straight line L



- [b] Solve the following equation:
 $2x + 9 = 21$, $x \in \mathbb{N}$

- 5 [a] A triangle whose area is 120 cm^2 and its height is 5 cm.
 Find the length of its base.

- [b] The following table shows the frequency distribution of the number of work hours of 50 workers:

Set	10 –	20 –	30 –	40 –	Total
Frequency	12	8	16	14	50

Draw the frequency polygon which represent these data

Additional question

Choose the correct answer :

- (1) $(5 - 9) \dots \mathbb{N}$ (\in or \subset or \notin or \nsubseteq)
 (2) The next number in the pattern 1, 3, 9, 27 is
 (30 or 33 or 81 or 36)
 (3) $(4 \times \dots) \times 78 = 7800$ (5 or 25 or 50 or 125)
 (4) $(7 \times 2) \times 5 = \dots \times (2 \times 5)$ (2 or 5 or 7 or 14)

20 Kafr El-Sheikh Governorate

El-Borg Educational Directorate
Directorate of Maths



Answer the following questions :

1 Complete :

- [a] The circumference of the circle = $\pi \times \dots$
 [b] If $x + 2 = 5$, then $x = \dots$
 [c] If $y = x + 5$, then the constant is
 [d] Adding 5 to twice the number x is

2 Choose the correct answer :

- [a] If $3x = 15$, $x \in \mathbb{N}$, then $x = \dots$ (12 or 5 or $\frac{1}{5}$ or $\frac{1}{3}$)
 [b] If A (2, 3), B (2, 7), then the midpoint of \overline{AB} is
 ((10, 4) or (2, 5) or (2, 10) or (0, 9))
 [c] The area of a rhombus of diagonals 10 cm. and 20 cm. =cm²
 (200 or 30 or 100 or 400)
 [d] The sum of the two numbers x and y is 10, then $x = \dots$
 (10 or $10 + x$ or $10 - x$ or $10 - y$)

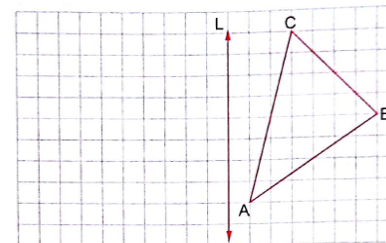
3 [a] If the number x exceeds twice the number y by 9 write the mathematical relation between x and y

- [b] Solve the equation : $2x - 1 = 3$ in \mathbb{N}

4 [a] Find the area of a triangle whose base length is 12 cm. and height is 5 cm.

- [b] Find the circumference of a circle if its diameter is 14 cm. ($\pi = \frac{22}{7}$)

5 [a] Draw the image of the $\triangle ABC$ by reflection in the straight line L



[b] The following table shows the marks of 50 pupils in math test in one month :

Sets	10 -	20 -	30 -	40 -	Sum
Frequency	10	12	18	10	50

Represent these data by frequency polygon.

Additional question

[a] List, then represent the following set on the number line :

$$X = \{x : x \in \mathbb{N}, 2 \leq x < 6\}$$

[b] Use the distributive property to get the product of : 18×99

21 El-Beheira Governorate

Rashid Educational Zone
Maths supervision



Answer the following questions :

1 Complete the following :

- [a] Twice a number x is
 [b] The area of the rhombus = $\frac{1}{2} \times$ the product of
 [c] If the area of square is 8 cm^2 , then its diagonal length = cm.
 [d] The perimeter of equilateral triangle whose side is $x = \dots$

2 Choose the correct answer :

- [a] If $x + 5 = 11$, then $x = \dots$ (5 or 6 or 7 or 8)
 [b] A circumference of a circle is 22 cm., then its diameter length is cm. where $\pi = \frac{22}{7}$ (3.5 or 7 or 8 or 11)
 [c] The square has axes of symmetry. (0 or 2 or 3 or 4)

Final Examinations

- [d] A triangle whose area = 120 cm^2 , and its height = 10 cm , then its base length = cm. (12 or 18 or 24 or 10)

3 [a] Solve the equations in \mathbb{N} :

(1) $x - 3 = 21$ (2) $3y = 27$

- [b] Which is larger in area? a triangle with base 8 cm and height 7 cm , or a parallelogram with base length 6 cm and height 5 cm .

- 4 [a] If the diameter length of a bicycle's wheel is 66 cm , what is the covered distance if the wheel turns 1000 rounds? where $(\pi = 3.14)$

- [b] In the coordinate plane, draw the triangle ABC where A $(2, 1)$, B $(5, 1)$ and C $(5, 5)$, then draw the image of the triangle ABC by reflection in \overline{BC}

- 5 [a] The lengths of the diagonals of a rhombus are 30 cm and 20 cm . Calculate its area.

- [b] Represent the following data by a frequency polygon.

Sets	3 -	6 -	9 -	12 -	15 -	Total
Frequency	4	7	10	6	3	30

Additional question

Complete :

- [a] The additive neutral element in \mathbb{N} is
 [b] $47 \times (36 + 64) = 47 \times \dots = \dots$
 [c] The set of even numbers - the set of odd numbers =
 [d] If $5 + 0 = 0 + 5 = 5$, then it is called property.

22 El-Fayoum Governorate

Directorate of Education
Supervisors of Mathematics



Answer the following questions :

1 Choose the correct answer :

- [a] If we subtract 5 from x , we get
 (5x or $5 - x$ or $x - 5$ or $x + 5$)
 [b] The area of the triangle in which the length of its base 10 cm and its height 6 cm is cm^2 (30 or 60 or 16 or 15)

- [c] $34000 = \dots$ thousands. (34000 or 3400 or 340 or 34)

- [d] The shown transformation is called b | d
 (reflection or rotation or translation)

2 Complete each of the following :

- [a] $5x = 35$, $x \in \mathbb{N}$, then $x = \dots$
 [b] The number of axes of symmetry of a square =
 [c] The smallest odd prime number is
 [d] If the perimeter of a square is 32 cm , then its side = cm.

3 [a] Solve the following equations such that $x \in \mathbb{N}$:

(1) $x - 4 = 1$ (2) $3x + 8 = 29$

- [b] A parallelogram of area 36 cm^2 , and the length of its base is 4 cm , find the corresponding height of its base.

4 [a] Which is smaller in area?

A rhombus whose diagonals lengths is 8 cm and 5 cm , or a rectangle whose width is 5 cm and length is 6 cm .

- [b] A circle of radius 14 cm , find its circumference. ($\pi = \frac{22}{7}$)

- 5 [a] On a coordinate plane, draw the figure ABCD where A $(1, 1)$, B $(4, 1)$, C $(4, 3)$, D $(1, 3)$ then complete :

- (1) The length of AB = unit.
 (2) The name of the figure ABCD is

- [b] Draw the frequency polygon which represent the following table of data :

Sets	10 -	20 -	30 -	40 -	50 -	Total
Frequency	3	4	6	4	3	20

Additional question

Complete using $(\in, \notin, \subset \text{ or } \supset)$:

- [a] $\frac{0}{3} \dots \mathbb{N}$ [b] $\{\frac{1}{3}, 1, 2\} \dots \mathbb{N}$
 [c] The set of even numbers The set natural numbers.
 [d] $\{2, 3, 0, 4\} \dots \mathbb{N}$

23 Beni Suef Governorate

Directorate of Education
Directorate of Official Lang Schools



Answer the following questions :

1 Choose the correct answer :

[a] $x + 5 = 20$, $x \in \mathbb{N}$, then $x = \dots\dots\dots$ (4 or 6 or 15 or 25)

[b] The number of altitudes of the triangle is $\dots\dots\dots$
(0 or 1 or 2 or 3)

[c] The number of axes of symmetry of the rhombus = $\dots\dots\dots$
(1 or 2 or 3 or 4)

[d] If the sum of two numbers x and y is 20 , then $y = \dots\dots\dots$
($20 + x$ or $20 - x$ or $x - 20$ or $y + 20$)

2 Complete the following :

[a] Area of rectangle = $\dots\dots\dots \times \dots\dots\dots$

[b] The length of diagonal of square is 12 cm. , then its area = $\dots\dots\dots \text{cm}^2$

[c] Area of parallelogram = $\dots\dots\dots \times \dots\dots\dots$

[d] The opposite transformation is $\dots\dots\dots$ 

3 [a] Solve the equations , where $x \in \mathbb{N}$:

(1) $2x + 7 = 19$

(2) $x - 8 = 18$

[b] Find the circumference of a circle with a radius 14 cm. ($\pi = \frac{22}{7}$)

4 In a coordinate plane determine the points A (2 , 2) , B (4 , 2) , C (4 , 8) and D (2 , 8) , then :

[a] Draw ABCD

[b] Draw the image ABCD by reflection on \overline{BC}

5 [a] Which is greater in area ? a rhombus whose diagonals are 6 cm. and 8 cm. or a square whose diagonal is 8 cm.

[b] The following data represents the marks in Arabic test for students in one classroom :

Sets	10 -	20 -	30 -	40 -	Total
Frequency	8	12	16	14	50

Draw the histogram for this distribution.

Additional question

Using the properties of addition and multiplication in \mathbb{N} , find :

[a] $48 + 37 + 52 + 63$

[b] $125 \times 17 \times 8$

24 El-Menia Governorate

Governmental Language Schools
General Supervisor of mathematics



Answer the following questions :

1 Complete :

[a] $3x = 15$, then $x = \dots\dots\dots$

[b] The square whose diagonal 8 cm. , its area $\dots\dots\dots \text{cm}^2$

[c] The number of axes of symmetry of the rhombus = $\dots\dots\dots$

[d] The perimeter of a rectangle is 20 cm. if its length is x , then its width is $\dots\dots\dots$

2 Choose the correct answer :

[a] The diameter length of a circle is 14 cm. , then its radius = $\dots\dots\dots$ cm.
(14 or 7 or 28 or 3.5)

[b] The length of the base of the triangle is 8 cm. and its height is 5 cm. , then the area = $\dots\dots\dots \text{cm}^2$ (8 or 9 or 20 or 40)

[c] The perimeter of the equilateral triangle whose side length L cm. is $\dots\dots\dots$ cm. ($L + 3$ or $\frac{1}{3}L$ or $L - 3$ or $3L$)

[d] $x + 8 = 15$, $x \in \mathbb{N}$, then $x = \dots\dots\dots$ (3 or 7 or 6 or 5)

3 [a] Solve :

(1) $y - 3 = 9$ where $y \in \mathbb{N}$

(2) $2x + 9 = 21$ where $x \in \mathbb{N}$

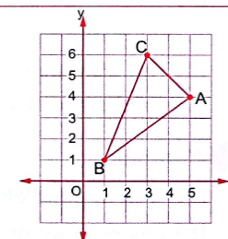
[b] Find the circumference of a circle with diameter length 14 cm. ($\pi = \frac{22}{7}$)

4 [a] From the opposite graph , complete :

A ($\dots\dots\dots$, $\dots\dots\dots$)

B ($\dots\dots\dots$, $\dots\dots\dots$)

C ($\dots\dots\dots$, $\dots\dots\dots$)



Final Examinations

- [b] Find the area of rhombus whose side length 12 cm, and its height 10 cm.

- 5 [a] Translate the statement into an equation :
If 9 is subtracted from a number , then the result is 23

- [b] Represent the following data by histogram :

Sets	10 –	20 –	30 –	40 –	Total
Frequency	3	7	5	6	21

Additional question

Complete :

- [a] If A, B, C are natural numbers , then $(A \times B) \times C = A \times (B \times C)$ called property.
[b] $91 \times (73 + 27) = 91 \times \dots = \dots$
[c] The smallest natural number is
[d] The additive neutral element in \mathbb{N} is

25 Assiut Governorate

Assiut Educational Zone
Al-Tahreer Language School



Answer the following questions :

- 1 Choose the correct answer :

- [a] If $x + 3 = 5$, $x \in \mathbb{N}$, then $x = \dots$ (1 or 2 or 3 or 4)
[b] The area of rhombus whose diagonals length are 6 cm. and 8 cm. is cm^2 (48 or 12 or 24 or 40)
[c] If the longest chord in a circle is 7 cm. then the circumference of the circle is cm. where $\pi = \frac{22}{7}$ (3.7 or 7 or 22 or 44)
[d] The difference between two numbers is 5 , the smaller one is y the then greater number is (5y or 5 - y or y - 5 or y + 5)

- 2 Complete :

- [a] Area of parallelogram = \times
[b] The number of axes of symmetry of the rectangle =

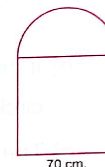
- [c] The rhombus whose area is 36 cm^2 and the length of one of its diagonals is 8 cm. then the length of the other diagonal = cm.
[d] Shorouk saved x pounds , her father gave her 10 pounds then she has

- 3 [a] Solve the equation : $2x + 9 = 21$, $x \in \mathbb{N}$

- [b] In the opposite figure :

There is a window which has the form of a square , whose side length is 70 cm. , and above it , there is a semicircle.

- (1) Calculate the perimeter of the window.
(2) If the area of the semicircle is 3850 cm^2 , find the area of the window.



- 4 [a] Which is greater in area ? a square whose diagonal length is 10 cm. or a right angled triangle whose legs are 8 cm. and 6 cm.
[b] Find the number which if added to 3 , the sum will be 9

- 5 [a] In the cartesian co-ordinates plane , determine the points A (2 , 2) , B (4 , 2) , C (4 , 8) and D (2 , 8) If \overline{BC} is the axis of reflection of the figure ABCD , determine the image of the figure ABCD

- [b] The following table shows the frequency distribution of the number of work hours of 50 workers. Graph these data using the frequency polygon :

Sets	2 –	4 –	6 –	8 –	10 –	Total
Frequency	8	9	15	16	2	50

Additional question

Choose the correct answer :

- [a] $\frac{5}{7} \dots \mathbb{N}$ (\in or \notin or \subset or $\not\subset$)
[b] If $X = \{a : a \in \mathbb{N} , 4 < a < 5\}$, then $X = \dots$ ($\{4\}$ or $\{5\}$ or $\{4, 5\}$ or \emptyset)
[c] The set of even numbers (E) \cap the set of prime numbers (P) = (P or $\{0\}$ or \mathbb{N} or $\{2\}$)
[d] The sum of two natural numbers \mathbb{N} (\in or \notin or \subset or $\not\subset$)

26 Souhag Governorate

Directorate of Education
Directorate of Official Language Schools



Answer the following questions :

1 Choose the correct answer :

- [a] The area of rhombus whose diagonals lengths are 6 cm. and 8 cm. is cm² (48 or 12 or 24 or 40)
- [b] If the longest chord in a circle is 7 cm. , then the circumference of the circle is cm. where $(\pi = \frac{22}{7})$ (3.5 or 7 or 22 or 44)
- [c] The number of axes of symmetry of rhombus equals (zero or 1 or 2 or 4)
- [d] Twice the number x subtracted 7 from it = ($7 - x$ or $2x - 7$ or $7x + 2$ or $14x$)

2 Complete the following :

- [a] The perimeter of square whose side length is 10 = cm.
- [b] Area of the triangle = $\frac{1}{2}$ the length of its base \times
- [c] The side length of a square is 5 cm. , then its area = cm²
- [d] The number of symmetry axes of an equilateral triangle =

3 [a] Solve each of the following equation :

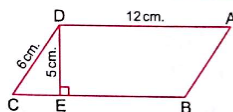
(1) $2x + 8 = 14$ (2) $x - 7 = 25$

- [b] Find the area of a triangle whose base length is 5 cm. and the corresponding height is 6 cm.

4 [a] In the opposite figure :

ABCD is a parallelogram
where AD = 12 cm. , CD = 6 cm.
, ED = 5 cm. and $\overline{ED} \perp \overline{BC}$

Find the area of the parallelogram.



- [b] Graph the figure ABCD where A (2 , 7) , B (3 , 4) , C (8 , 4) and D (7 , 7) What is the name of the figure ABCD ?

5 The following table shows the frequency distribution of the number of work hours of 50 workers :

Sets	4 –	6 –	8 –	10 –	Total
Frequency	12	8	16	14	50

Draw the frequency polygon which represent these data.

Additional question

- [a] Write in the list method the set : $X = \{x : x \in \mathbb{N}, 3 \leq x \leq 8\}$, then represent its element on the number line.
- [b] Use the properties of addition to find the result of the following :
 $82 + 75 + 18$

27 Aswan Governorate

Aswan Educational Directorate
Edfu Language School



Answer the following questions :

1 Choose the correct answer from those given :

- [a] The number of axes of symmetry of the rhombus is (1 or zero or 2 or 4)
- [b] If $3x = 15$, then $x =$ (5 or 12 or $\frac{1}{5}$ or $\frac{1}{3}$)
- [c] $\frac{1}{2}$ \square $\frac{1}{8}$ (< or = or >)
- [d] The circle in which the length of the greatest chord is 14 cm.
, its circumference = $(\pi = \frac{22}{7})$ (3.5 or 14 or 22 or 44)

2 Complete each of the following :

- [a] Area of square = $\frac{1}{2} \times$ \times
- [b] The measure of a right angle =
- [c] If we add 5 to three times of the number y , then we get the number
- [d] The square whose diagonal length is 10 cm. , its area is cm²

Final Examinations

- 3 [a] ABC is a triangle, its base length is 18 cm, and its height is 6 cm, then find its area.
- [b] Which is greater in area? a rhombus the lengths of its diagonals are 8 cm, 6 cm, or the parallelogram in which the length of its base is 10 cm, and the corresponding height is 5 cm.

- 4 [a] Solve the following equation : $x + 3 = 12$

- [b] In a coordinate plane, draw $\triangle ABC$ where A (2, 3), B (5, 3) and C (5, 7), then draw the image of $\triangle ABC$ by reflection across \overline{BC}

- 5 [a] The parallelogram whose area is 36 cm^2 and the length of a side of it is 9 cm, then find the corresponding height to this side.

- [b] The following table shows the frequency distribution of the number of work hours of 50 workers :

Sets	4 –	6 –	8 –	10 –	Total
Frequency	12	8	16	14	50

Draw the frequency histogram and frequency polygon which represent these data.

Additional question

Complete :

- [a] The set of natural numbers more than 5 is
- [b] 2, 7, 12, 17, (in the same pattern)
- [c] If $A \times 60 + A \times 4 = 3 \times 64$, then $A = \dots\dots\dots$
- [d] The multiplicative neutral element in \mathbb{N} is

28 South Sinai Governorate

Dahab Educational Directorate



Answer the following questions :

- 1 Choose the correct answer :

- [a] The perimeter of square with side length $x = \dots\dots\dots$
 ($4x$ or $x+4$ or $\frac{x}{4}$ or $x-4$)
- [b] 6 added to the number y is ($6y$ or $y+6$ or $y-6$ or $\frac{y}{6}$)

- [c] If $x + 8 = 15$, then $x = \dots\dots\dots$ (3 or 7 or 6 or 5)

- [d] The number of axes of symmetry of rhombus =
 (zero or 1 or 2 or 4)

- 2 Complete the following :

- [a] The area of parallelogram = \times
- [b] The area of triangle whose base length 8 cm, and height 5 cm.
 = cm^2
- [c] The place value of the digit 3 in the number 6.135 is
- [d] If x is odd number then $x + 2$ is number.

- 3 [a] Find the circumference of a circle with diameter length 7 cm. ($\pi = \frac{22}{7}$)

- [b] Complete : If $15 \times 34 = (5 + 10) \times x$, then $x = \dots\dots\dots$

- [c] Solve the equation : $3x + 7 = 19$

- 4 [a] In the Cartesian coordinate plane determine the following points

A (6, 6), B (6, 2), C (1, 2) and D (1, 6)

What's the name of the figure ?

- [b] Find the area of rhombus whose diagonals lengths are 6 cm, and 8 cm.

- 5 The following table shows the marks of 35 students in math exam :

Sets	10 –	20 –	30 –	40 –	total
Frequency	8	12	10	5	35

Represent these data by frequency polygon.

Additional question

Using the properties of commutation, distribution and associative in \mathbb{N} , find the value of each of the following :

- (1) $8 \times 184 \times 125$ (2) $28 + 59 + 72 + 41$
 (3) $137 \times 36 - 37 \times 36$

29 Red Sea Governorate

Queensr Educational Administration



Answer the following questions :

1 Complete :

- [a] The number of axes of symmetry of the rhombus =
 [b] The perimeter of an equilateral triangle whose side length is L =
 [c] If $4 + x = 15$, then x =
 [d] The circle whose diameter length is 10 cm. , its circumference = cm. (where $\pi = 3.14$)

2 Choose the correct answer :

- [a] The triangle whose base length is 5 cm. , and the corresponding height of it is 6 cm. , its area = cm² (30 or 15 or 25 or 36)
 [b] If $3x = 15$, then x = (5 or 12 or $\frac{1}{5}$ or $\frac{1}{3}$)
 [c] Twice the number x subtracted 3 from it =
 ($x - 3$ or $2x + 3$ or $2x - 3$ or $3 - 2x$)
 [d] The square whose diagonal length is 8 cm. its area = cm² (64 or 32 or 16 or 8)

3 [a] Find the area of a rhombus in which the length of its diagonals are 8 cm. and 6 cm.

[b] Solve the following equation : $x + 3 = 13$

4 [a] Find the area of a parallelogram in which the length of the base = 10 cm. , and its height = 5 cm.

[b] In the coordinate plane draw the triangle ABC where A (2 , 5) , B (5 , 2) and C (5 , 8) , then draw the image of the triangle ABC by reflection across \overline{BC}

5 The following frequency table shows the marks of 35 students in the exam :

Sets	10 –	20 –	30 –	40 –	Total
Frequency	8	12	10	5	35

Draw the frequency polygon which represents these data.

Additional question

Choose the correct answer :

- [a] $\{ 3 , \frac{15}{4} \}$ \mathbb{N} (\in or \notin or \subset or $\not\subset$)
 [b] The set of odd numbers the set of natural numbers. (\in or \notin or \subset or $\not\subset$)
 [c] If x is an odd number , then $x + 2$ is number (odd or even or prime)
 [d] If $7 \times 15 = 15 \times a$, then a = (15 or 7 or 10 or 5)

30 Matrouh Governorate

Matrouh Educational Directorate
Maths Inspection



Answer the following questions :

1 Complete the following :

- [a] If a radius of circle is (r) , then the circumference of a circle = $\pi \times$
 [b] The sum of two number is 21 and one of them is x , then the other is
 [c] If $7 \times 15 = 15 \times x$, then x =
 [d] Area of parallelogram =
 [e] If the diagonal length of a square is 10 cm. , then its area = cm²

2 Choose the correct answer between brackets :

- [a] If the diagonals lengths of a rhombus 10 cm. , 12 cm. , then its area = cm² (120 or 60 or 24 or 32)
 [b] Subtract 7 from double number x
 ($x - 7$ or $2x - 7$ or $7x + 2$ or $14x$)
 [c] Area of triangle in which the length of its base is 12 cm. and its height is 5 cm. = cm² (30 or 60 or 17 or 34)
 [d] The diameter of circle = (r or $3r$ or $4r$ or $2r$)
 [e] If $x + 8 = 15$, then x = (3 or 7 or 6 or 5)

3 [a] Find the area of a parallelogram in which length of its base is 15 cm. and its corresponding height is 4 cm.

Final Examinations

[b] Find the value of x which make the following equation correct :

(1) $x - 3 = 9$

(2) $2x + 5 = 17$

4 In the coordinate plane :

[a] Determine the position of the points A (8 , 5) , B (8 , 2) , C (5 , 2) , D (5 , 7)

[b] Draw line segments \overline{AB} , \overline{AD} , \overline{CD} , \overline{BC}

[c] If \overline{CD} is a reflection axis of shape ABCD, find its image using the suitable symbole.

5 The following table shows marks of 40 students in math exam :

Sets	10 –	20 –	30 –	40 –	50 –	sum
Frequency	5	7	12	9	7	40

Represent these data by histogram and frequency polygon.

Additional question

Use the properties of operations of natural numbers to find the result :

(1) $8 \times 47 \times 125$

(2) $56 \times 42 + 56 \times 58$